



Service delivery

Acute assessment and care, without hospital transfer, for older people



To evaluate two models of care both designed to prevent the conveyance to hospital of elderly patients with frailty. The aim is to minimise the disruption to patient’s support networks by maximising the number of patients treated and maintained in their usual place of residence.



| Project summary

In recent years, South Warwickshire University NHS Foundation Trust (SWUFT) and Sandwell and West Birmingham Hospitals NHS Trust (SWBH) have developed models of care to prevent patients being conveyed to hospital.

The SWUFT model relies on ambulance staff being able to access specialist geriatrician staff at the trust directly, and get advice and emergency community responses from multidisciplinary teams that enable the patient to remain at home.

At SWBH, the model relies on doctors and other members of the multidisciplinary team going out to visit patients in their own home, and using new technology (such as mobile ultrasound and blood tests) to diagnose and treat patients at home rather than in hospital.

The COVID-19 pandemic meant the NHS wanted many more people to be treated at home and saw the creation of virtual wards, a simplified version of the SWBH model. There is increased interest in developing these models further towards a more comprehensive model of ‘Hospital at Home’ to help reduce the pressures on secondary care.

Due to the speed with which these services have been set up, there is limited understanding of how well they work, which services work best, how to set them up in new areas, and how to make them sustainable. One of the main challenges is that there are many different services trying to achieve similar objectives, so it is about finding common themes and solutions and understanding it is unlikely there will be one model which will work for all areas of the country.

| Addressing health inequalities

We deliberately chose models serving very different populations. SWUFT serves a population which is not very ethnically diverse and is reasonably affluent. However, there are some small areas of deprivation along with some challenges around more rural and less well-connected communities.

The other area is very ethnically diverse and has significant socio-economic challenges. Sandwell (the main catchment area for SWBH) was ranked as the fifth most deprived Clinical Commissioning Group in 2019's [Index of Multiple Deprivation](#). Patients in these areas frequently fall into the 'historically/traditionally under-represented' category.

By comparing the two different models, both in demographics and design, one of our objectives was to understand whether health inequalities impact on which patients access the service

Public representatives, including people with experience of accessing hospital at home services and carers from diverse backgrounds, were involved from the start of the project, including informing topic guides for interviews, and involvement in communities of practice. These were 'safe spaces' where topics, such as barriers to accessing services, could be discussed. In addition to feeling that they were able to contribute to discussions, NHS and social care colleagues felt the involvement of patients in the implementation group added value to discussions.



“We can assess you, we can diagnose you and, with the right support, we can treat you at home if that’s your choice. We’re not replacing the hospital. This isn’t about the death of the hospital, if anything it is about the rebirth of the hospital.”

Prof Dan Lasserson, University of Warwick and NIHR ARC WM Acute Care Interfaces lead quoted on BBC Panorama (first aired 16 Jan 2023).

| Outcomes

We need to develop a much better understanding of how Hospital at Home (HaH) models work and their effectiveness. This has been recognised nationally by the inclusion of HaH as one of the [Areas of Research Interest](#) published by DHSC in January 2023.

A key theme was how the clinical risk associated with non-conveyance is best managed and shared. This is challenging across different professional groups. At SWBH, with a clinician-delivered service, this was easier as decision-making occurs in situ, but for SWUFT significant relationship building needed to take place with ambulance staff to build trust (e.g. for a paramedic not to convey a patient who a GP had called an ambulance for).

We learnt it is possible, with careful planning, to involve patients in an open discussion on the clinical risks for the implementation of these services. There is currently limited research on how to involve patients in health and social care implementation and this project begins to make a contribution to this space.

A much larger study would be required to understand the return on investment, but a greater understanding of delivery models builds foundations for this to take place in future.

| Implications for service improvement

Due to the wide discrepancies in service organisation and delivery, it is clear that a range of models, rather than one model, are required to deliver emergency community response to the health and social care crisis. Cost-effectiveness of these models requires further research.

There is huge potential in the availability of delivering point of care testing, but there are significant workforce training implications for point of care imaging, and a variability among hospitals around acceptance of point of care testing as an alternative to hospital based laboratories. Further research and implementation work is needed around training, mentoring and a nationally accepted method for quality assurance of point of care scanning and testing.

Relatively little is known about ultrasound point of care testing in UK primary care, other than that there is limited uptake despite its significant potential to improve care. Further work is needed to understand implementation barriers and how capacity and capability can be created. Increased uptake of this technology in primary care could contribute to reduced pressure on secondary care services.

Next steps

We will support policy makers to further develop Hospital at Home models and will link across ARCs on the 'Urgent and Emergency Care' national theme to coordinate work on this topic, along with the Hospital at Home Society. These models are complex and it is clear from providers that considerable support to implement them is required.

Following the knowledge gaps identified in this project, we plan to undertake further research to understand the use of point of care ultrasound (PoCUS) in primary care by surveying GPs. We are also planning a study to determine the learning curve in developing proficiency using PoCUS. These will be published in a peer-reviewed academic journal.

Further work is also needed to prepare the workforce. Currently only three out of 44 medical schools in England include PoCUS as part of their undergraduate curriculum, compared to around 70% in the US.

This project was undertaken by Health Innovation West Midlands (the new name for West Midlands Academic Health Science Network) and National Institute for Health and Care Research (NIHR) Applied Research Collaboration (ARC) West Midlands with funding from the Accelerated Access Collaborative at NHS England, and support from the NIHR.

The views expressed in this report are those of the authors and not necessarily those of NHS England, the National Institute for Health and Care Research, or the Department of Health and Social Care.

Resources

[Department of Health and Social Care Areas of Research Interest](#) (published January 2023). Hospital at Home is included under Priority 2 and Priority 3.

[BBC Panorama](#) featuring Prof Lasserson from ARC WM and Hospital at Home.

British Medical Journal [opinion piece by Prof Lasserson from ARC WM](#) on the need for evidence to underpin health policy on virtual wards.

British Medical Journal [opinion piece on improving ultrasound training](#) as part of medical undergraduate courses in the UK.

Trade press articles on the West Midlands NIPP project in [Health Business](#) and [National Health Executive](#).

Key partners

- South Warwickshire University NHS Foundation Trust
- Sandwell and West Birmingham Hospitals NHS Trust
- The Hospital @ Home Society
- Butterfly Network



More information

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Care settings

- ✓ Ambulance
- ✓ Community
- ✓ Urgent and emergency

Clinical areas

- ✓ Ageing
- ✓ Injuries and emergencies

Cross-cutting themes

- ✓ Patient safety
- ✓ Workforce

Solution themes

- ✓ Diagnosis ✓ Treatment
- ✓ Management ✓ Communication and consultation

Innovation types

- ✓ Service

Innovation status

- ✓ Pilot